

## A New *Euryarthrum* (Coleoptera, Cerambycidae) from Sabah, East Malaysia

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**Abstract** *Euryarthrum assimile* sp. nov. is described from Sabah, East Malaysia, with habitus photograph and illustrations of the male terminalia. This new species is similar to *E. apicefasciatum* HÜDEPOHL in general appearance, but differs from the latter mainly by the entirely black antenna reaching elytral apices, more strongly convex pronotum, weakly convex metasternal process, longer hind femur, and shorter and more weakly incurved mid tibia in the male.

### Introduction

A total nine species of the genus *Euryarthrum* BLANCHARD, 1845 have so far been recorded from Sabah, East Malaysia (YOSHITAKE & NIISATO, 2009). Judging from the remarkably rich entomofauna of this region, however, it is still expected that not a few *Euryarthrum* species will be discovered from Sabah. Recently, we had an opportunity to examine a specimen of an undetermined *Euryarthrum* species that was collected from Mt. Trus Madi, Sabah. Though the species in question was similar in general appearance to *E. apicefasciatum* HÜDEPOHL, 1988 described from the Malay Peninsula, we concluded that it is new to science on the basis of detailed morphological observations. In this paper, we describe the new species and illustrate its important taxonomic features.

### Material and Methods

This study was based on specimens preserved in the National Institute for Agro-Environmental Sciences, Tsukuba (NIAES). The holotype of the new species described herein is deposited at NIAES.

External structures were observed under a Nikon SMZ1500 stereoscopic microscope. Habitus photograph was taken with a Nikon D80 digital camera. Measurements of various body parts are coded as follows: LB=length of body, from apical margin of clypeus to apices of closed elytra; WH=maximum width of head across outer margin of an eye to that of the other; LG=length of gena, from upper to lower margins; LL=length of lower eye lobe, from upper to lower margins; WP=maximum width of pronotum; LP=length of pronotum, from base to apex along midline; WE=maximum width of elytra; LE=length of elytra, from basal margins to apices. All measurements are in mm.

To examine male terminalia, specimens were macerated in hot water and dissected under the stereoscopic microscope. The abdominal segment VIII was first removed from body, and then cleaned in hot 10% KOH solution for 5 to 10 minutes. Male terminalia extracted from abdominal segment VIII were mounted on slides with glycerol, and studied with a Leitz Orthoplan optical microscope, and drawn in detail through an attached camera lucida. Scale bars were calibrated using a Nikon objective micrometer. Verbatim label data indicated by quotation marks are provided for the holotype. Label breaks are indicated by a slash (“/”).

## Taxonomy

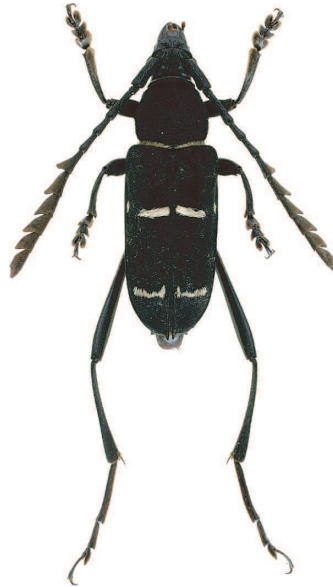
### *Euryarthrum assimile* sp. nov.

(Figs. 1–8)

*Description.* Male. Dimensions: LB: 14.70. WH: 2.60. LG: 1.30. LL: 1.05. WP: 3.70. LP: 3.50. WE: 4.60. LE: 9.30. N=1 for all measurements. Habitus as in Fig. 1.

Integument black. Body surface opaque; more or less shiny on legs and head except for vertex and occiput. Body medium-sized and stout.

Head covered with shiny light-colored hairs; occiput nearly glabrous, bearing three very long hairs along posterior margin of each eye; vertex moderately covered with long incurved hairs; frons with short sparse hairs; clypeus glabrous; genae moderately with short hairs; tempora densely with long incurved hairs; neck sparsely with short hairs; gula rather densely covered with long incurved hairs. Antennal segments I–V sparsely covered with light-colored minute hairs; segments VI–XI densely with darker minute hairs except for basal part of VI which is sparsely covered with light-colored minute hairs. Prothorax almost glabrous, provided with a pale yellow transverse band of dense stout hairs along basal margin; apical margin fringed with a row of short golden hairs; sides with a few fine long shiny hairs on basal half; prosternum rather densely with curved fine hairs, bearing a few fine long shiny hairs on apical third at each side. Scutellum glabrous. Elytra almost glabrous, minutely pubescent along external margins, divided into three uneven parts by two transverse bands of silky white stout hairs; antemedian band thick, broadly interrupted by submedian ridges; subapical band thinner. Legs moderately covered with minute light-colored hairs; mid coxae rather



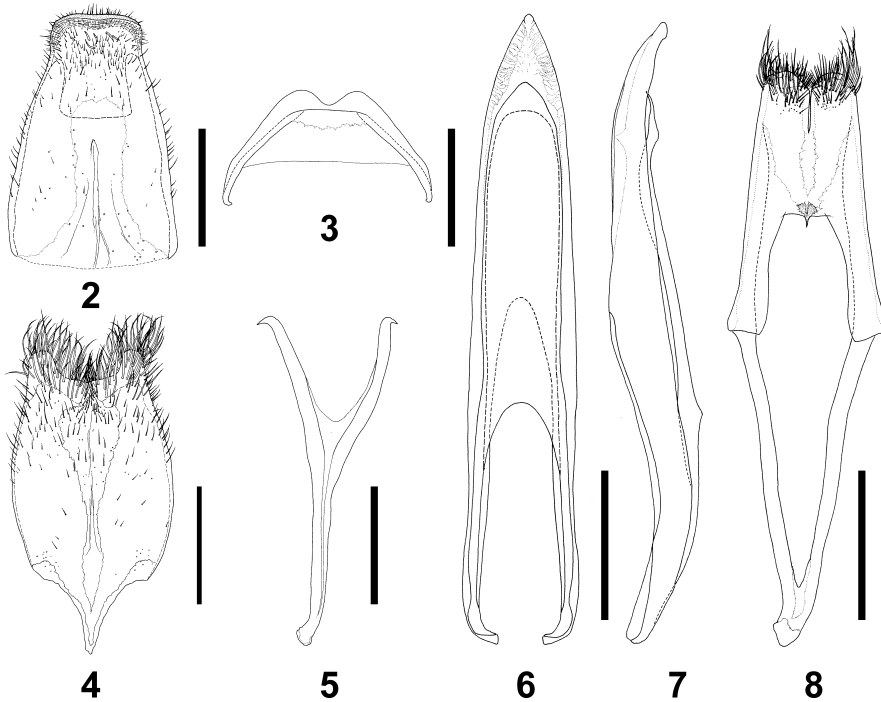
Figs. 1. *Euryarthrum assimile* sp. nov., holotype male.

densely with white hairs; hind coxae partially with darker hairs; mid femur almost glabrous on basal half of dorsal side; hind femur almost glabrous on basal half of dorsal side, fringed with suberect and subrecumbent setae on basal half along anterior margin; fore tibiae internally with light brown setae on dorsal side, the setae are suberect, becoming longer and denser apically; mid and hind tibiae fringed with silver setae along internal margins; hind tibiae sparsely mingled with longer subrecumbent setae. Mesosternum moderately covered with light-colored hairs; mesepisternum sparsely with stout white hairs on basal half, and densely with stout white hairs on apical half; mesepimeron almost glabrous, scattered with dark minute hairs. Metasternum moderately covered with fine dark and white hairs, rather densely with stout suberect light brown hairs on disc, bearing a pair of white transverse bands of long stout hairs along apical margin; metepisternum sparsely with minute dark hairs, scattered with longer light-colored hairs, densely covered with stout white hairs on apical part. Sternite I covered with hairs as those on metasternum, with a transverse band of stout white hairs along apical margin; sternite II more sparsely with minute hairs, with a transverse band of stout white hairs along apical margin; sternites III and IV sparsely with minute hairs, with a transverse band of stout white hairs along apical margins; sternite V rather densely with stout white hairs, except for basal half which is sparsely pubescent, scattered with long golden hairs along apical margin; apical margin of sternite V fringed with golden hairs, mingled with white hairs.

Head narrower than pronotum, WH/WP 0.70, with a distinct median sulcus extending from occiput to base of frons; occiput indefinitely punctured, narrowly

prominent along median sulcus; vertex finely rugosely punctured, simple, not carinate laterally; frons shallowly irregularly punctured; genae deeper than lower eye lobes, LG/LL 1.24; eyes large, rather strongly prominent. Antennae moderately slender, extending to elytral apices; scape moderate in length, nearly three times as long as wide, rugosely punctured; segments III–V weakly rugosely punctured; segment III slender, slightly shorter than scape; segment IV short, nearly half as long as III; segment V nearly as long as IV, simple, not projected externally near apex; segment VI gently externally widened from base to basal third, and then more strongly widened to apex, densely minutely punctured on apical half. Prothorax nearly as long as wide, WP/LP 1.06, reticulately punctured; punctures relatively large, more or less merged with each other; pronotum strongly convex, faintly rugged on interstices between punctures; sides gradually dilated from constricted base, widest at slightly produced middle, rather strongly convergent apically, and then constricted at apex; basal margin slightly bisinuate; prosternal process with a relatively large subconical tubercle at middle of apical part. Scutellum subtriangular, smooth, not punctured. Elytra relatively short, LE/WE 2.02, moderately wider than or nearly 2.7 times as long as pronotum, WE/WP 1.24, LE/LP 2.66, finely reticulately punctured; each puncture moderate in depth, opaque in bottom; disc faintly rugged on interstices between punctures, moderately flattened except evenly convex postscutellar prominence, with submedian ridges which are gradually narrowed from base to middle and then more weakly convergent to subapical band; suture bluntly projected at apex; apical projections moderate in length, curved dorsally in profile; sides widest behind humeri, gradually narrowed in basal half, more weakly narrowed to apical fourth, then gently convergent apicad; each epipleuron thick and armed with two obtuse triangular projections at apex. Mesosternal process evenly weakly convex, not depressed along midline; apical margin moderately emarginate in middle. Metasternum finely densely punctured; disc more densely punctured. Sterna finely punctured; sternites I–IV with a glabrous part along apical margin, respectively; sternite I densely punctured, weakly shiny, nearly as long as II and III combined; sternite II moderately punctured, shiny, nearly half as long as I, as long as III; sternites III and IV more sparsely punctured, shiny, subequal in length to each other; sternite V sparsely punctured on basal half, densely punctured on apical half, shiny, nearly as long as III and IV taken together. Legs slender; hind femur long, 1.43 times as long as hind tibia; fore tibia weakly dilated externo-apically, weakly incurved; mid tibia short, evenly strongly incurved, simple, not prolonged apically; external margin of fore and mid tibiae shallowly emarginate near apex.

Tergite VIII (Fig. 2) elongate, nearly twice as long as wide, strongly raised apically, scattered with short setae on basal 2/3, moderately setiferous on apical third, mingled with several long stout setae; sides weakly narrowed on basal 2/3, more strongly narrowed to apical fifth, thence slightly dilated apically, sparsely fringed with setae; apical margin truncate, moderately fringed with setae. Tergite IX (Fig. 3) widely deeply emarginate at apex; apical margin asetose. Sternite VIII (Fig. 4) longitudinal, nearly twice as long as wide, rounded laterally, scattered with short setae on basal half,



Figs. 2–8. Male terminalia of *Euryarthrum assimile* sp. nov., —2, Tergite VIII in dorsal view; 3, tergite IX in dorsal view; 4, sternite VIII in ventral view; 5, sternite IX in ventral view; 6, median lobe in dorsal view; 7, ditto, in lateral view; 8, tegmen in dorsal view. Scale bars = 1.00 mm.

moderately setiferous on apical half, entirely well-pigmented; basal apodemes short, acutely projected; ventral contour of body and apodemes continuous; apical margin broadly deeply concave, densely setiferous. Sternite IX (Fig. 5) Y-shaped, slender, slightly longer than sternite VIII, simple, not appendiculate. Median lobe (Figs. 6, 7) slender, thick in profile; ventral contour near apex dorsally raised in profile; median struts short, nearly half as long as median lobe, moderately curved in profile; dorsal plate relatively wide, apically triangularly projected, strongly bisinuate in apical part in profile; ventral plate with sides weakly gradually narrowed in basal 2/3, then apically more strongly convergent, bearing a small round projection at apex; median foramen located at apical third of median lobe. Tegmen (Fig. 8) slightly shorter than median lobe; lateral lobes densely covered with long setae near apices, stout, subcontiguous with each other, obliquely subtruncate at each apex, not attenuate, with external margins subparallel, not laminate; ring part much longer than lateral lobes.

**F e m a l e.** Unknown.

**Type material.** Holotype male (NIAES Type Specimen Code No. COL-266), “[EAST MALAYSIA] Sabah/Mt. Trus Madi, 1200–1500 m./17.iv.1997, native collector”; “[HOLOTYPE] male/*Euryarthrum assimile*/YOSHITAKE & NIISATO, 2010”

(typed on red card); “NIAES COLLECTION” (typed on yellow card).

*Distribution.* Malaysia (Borneo).

*Etymology.* The species epithet refers to its similarity to *E. apicefasciatum*.

*Notes.* *Euryarthrum assimile* sp. nov. is similar to *E. apicefasciatum* HÜDEPOHL in having the second elytral band located on subapical part. However, *E. assimile* is readily distinguished from *E. apicefasciatum* mainly by the following points in the male: antennae entirely black, longer, reaching elytral apices; antennal segment V simple, not ecto-apically projected; pronotum more strongly convex; metasternal process weakly convex; hind femur longer; mid tibia shorter, more weakly incurved. In addition, *E. assimile* clearly differs from *E. apicefasciatum* by the male genital structures.

### Acknowledgments

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### 要 約

吉武 啓・新里達也: 東マレーシア・サバ州産 *Euryarthrum* 属 (コウチュウ目カミキリムシ科) の 1 新種. — 東マレーシア・サバ州の Trus Madi 山から *Euryarthrum assimile* sp. nov. を雄交尾器も含めて詳細に記載した. 本新種は *Euryarthrum apicefasciatum* HÜDEPOHL に似ているが, 触角が全体黒色で翅端に達することや前胸背板がより強く突出すること, 中胸腹板突起の突出が弱いこと, 後腿節がより長いこと, 中脛節がより短く湾曲が弱いことなどによって容易に識別可能である.

### References

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